# Contract No. R002-006

## "Renewable Electrolytic Nitrogen Fertilizer Production"

Submitted by Energy & Environmental Research Center Principal Investigators: Ted R. Aulich & Dr. Junhua Jiang

#### **PARTICIPANTS**

Sponsor	Cost Share
Energy & Environmental Research Center	
Utilizing National Alternative Fuels	
Laboratory Program funding	\$104,255
North Dakota Corn Utilization Council &	
Minnesota Corn Research & Promotion Council	\$100,000
North Dakota Industrial Commission	\$200,000
Total Project Cost	\$404,255

Project Schedule – 12 months Proje	ct Deliverables:
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Contract Date – October 21, 2008 Status Report: December 1, 2008 Start Date – September 1, 2008 Status Report: March 1, 2009 Completion Date – August 31, 2009 Status Report – June 1, 2009 Final Report – August 31, 2009

### **OBJECTIVE/STATEMENT OF WORK:**

This project will optimize processes for producing nitrogen fertilizers using biomass gasification-derived synthesis gas (biosyngas), nitrogen extracted from air and electricity. Because the processes have been demonstrated to operate with low-cost biosyngas rather than high-cost hydrogen derived from natural gas, they offer the potential for lower-cost and smaller-scale fertilizer production than achievable via the traditional natural gas-based route. Commercialization of the processes would enable regionally produced fertilizer to compete economically with imports and simultaneously develop a new fertilizer production industry.

The Energy & Environmental Research Center has been granted confidentiality for their application and reports with the understanding that a non-confidential version of each report and final report will be made available to the public.

#### **STATUS**

10/22/08